

REMARKS

As a preliminary matter, the Examiner requested documentation that the certified copy was submitted. In response, Applicants submit a copy of the postcard, claim for priority, and first page of the priority document, which was acknowledged by the USPTO as being received on January 29, 2002.

The specification is amended to correct for informalities.

The title of the invention is objected to as not being descriptive. Accordingly, Applicants have amended the title to "Inductance Device Driving System, Information Storage Apparatus, and Inductance Device Driving Method that Changes a Pulse Width of a Voltage Applied to an Inductance Device According to a Current Instruction Value." Claims 5 and 13 are also amended to overcome the Examiner's objections.

Claims 1-7 and 17-20 stand rejected under 35 U.S.C. 102(b) as being anticipated by Ishida et al. (U.S. Patent No. 6,040,674). In response, Applicants amended claims 1 and 17 to call for "an inductance of said inductance device generates a magnetic field applied to a magneto-optical disk so as to achieve information reproduction therefrom according to a super-resolution technology," and respectfully traverse because Ishida et al. do not disclose (or suggest) this feature.

The Nishida reference does not use super-resolution technology. Nishida is directed to a method of adjusting a motor driving device which performs current-feedback PWM drive. A specific object of Nishida is to provide a method of adjusting a motor driving device such that an offset can be adjusted so as to automatically minimize a dead zone (Col. 4, lns. 42-46). Nishida discloses that a 128-MB photomagnetic cartridge

medium employs the PPM recording method, in which data is recorded in accordance with marks on an optical disk (Col. 6, Ins. 48-51). Nishida further discloses 540-MB and 640-MB photomagnetic cartridge mediums that employ a PWM recording method, in which the front and rear edges of a mark correspond to data to be recorded (Col. 6, Ins. 57-60). Nishida is silent with respect to generating a magnetic field using super-resolution technology.

In contrast, the present invention calls for an inductance of the inductance device generating a magnetic field that is applied to a magneto-optical disk so as to achieve information reproduction therefrom according to a super-resolution technology. As discussed by Applicants in the specification, page 2, line 27, the strength of the external magnetic field used at the time of reproduction must be set up appropriately with high accuracy so that the level of a reproduction signal is prevented from lowering, which prevents a problem wherein reproduction can not be performed properly.

More specifically, magnetically induced super-resolution technology improves recording density by magnetically masking pits that are contiguous to a pit made by a laser spot. The super-resolution technology requires high accuracy in control of the magnetic field that is applied to the recording medium disk. In the present application, by controlling an off time in a PWM control scheme and a voltage applied to an inductance device according to an instruction value, it is possible to accurately control the magnetic field. Accordingly, since a system employing super-resolution technology is not disclosed (or suggested) by the Nishida reference, withdrawal of the § 102 rejection of independent claims 1 and 17 is respectfully requested.

Since claims 2-6 and 18-20 ultimately depend upon claims 1 and 17, respectfully, they necessarily include all of the features of their associated independent claims plus additional features. Thus, Applicants submit that the §102 rejection of these claims has also been overcome for the same reasons mentioned above to overcome the rejections of independent claims 1 and 17. Applicants respectfully request that the §102 rejections of claims 2-7 and 18-20 also be withdrawn.

Claim 8 stands rejected under 35 U.S.C. 103(a) as being obvious over Nishida et al., and further in view of Clive et al. (U.S. Patent No. 4,825,333). Clive is merely recited by the Examiner as teaching the use of switching in flywheel diodes in an environment for drive circuitry. Clive does not disclose or suggest super-resolution technology. Moreover, since claim 8 depends upon claim 1, which is now considered allowable for the reasons recited above, and because the Clive reference fails to overcome the deficiencies of the Nishida reference, withdrawal of the §103 rejection of claim 8 is respectfully requested.

Claims 9-15 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Lewis (U.S. Patent No. 5,721,714), in view of Nishida. In response, Applicants amended claim 9 to call for "wherein an inductance of said inductance device generates a magnetic field applied to a magneto-optical disk so as to achieve information reproduction therefrom according to a super-resolution technology," and respectfully traverse because the cited references do not disclose or suggest this feature.

Lewis is directed to an apparatus for controlling magnetic field strength of a bias coil at a focus point of a lens during recording on a medium. Lewis is merely cited by the Examiner as disclosing a basic magnetic field ability in an environment wherein a

magnetic field generator (head) is depicted, a current sensor, comparator, and a current driver are found. Lewis does not disclose or suggest generating a magnetic field according to a super-resolution technology.

In contrast, claim 9 is amended to call for "an inductance of said inductance device generates a magnetic field applied to a magneto-optical disk so as to achieve information reproduction therefrom according to a super-resolution technology." Accordingly, the reasons recited above with respect to the §102 rejection based on the Nishida reference are reasserted herein. Moreover, since the Lewis reference fails to overcome the deficiencies recited with respect to the Nishida reference, the combination of these references also fails to overcome the deficiencies and withdrawal of the §103 rejection of independent claim 9, and its associated depending claims 10-15, is respectfully requested.

Claim 16 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Lewis, Nishida, and further in view of Clive. Since claim 16 ultimately depends upon claim 9, it necessarily includes all of the features of its associated independent claim plus additional features. Thus, Applicants submit that the §103 rejection of claim 16 has also been overcome for the same reasons mentioned above to overcome the rejection of independent claim 9, and because Clive fails to overcome the deficiencies as discussed above. Applicants respectfully request that the §103 rejection of claim 16 also be withdrawn.

Claims 9-11 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Lewis, and further in view of Kumagai et al. (U.S. Patent No. 6,570,413).

The Kumagai reference is directed to a drive circuit that drives a voltage-control semiconductor switching device with a control terminal. More specifically, Kumagai relates to a drive circuit having a function of minimizing a turn-on time power dissipation and noise generation in a driven voltage-control semiconductor switching element (Col. 1, lns. 14-18). Kumagai is merely cited by the Examiner as teaching the ability of having additional time control circuitry for controlling the switching of a driver. Kumagai does not disclose or suggest generating a magnetic field using a super-resolution technology, as now recited in amended claim 9. Accordingly, the reasons recited above with respect to the rejection of claims 9-15 based on the Lewis and Nishida references are reasserted herein. In particular, since the Kumagai reference fails to overcome the deficiencies of the Lewis and Nishida references, the combination of these references also fails to overcome the deficiencies. For this reason, withdrawal of the §103 rejection of claims 9-11 is respectfully requested.

Claims 12-15 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Lewis and Kumagai and further in view of Nishida. Since claims 12-15 ultimately depend upon claim 9, they necessarily include all of the features of their associated independent claim plus additional features. Thus, Applicants submit that the §103 rejections of claims 12-15 have also been overcome for the same reasons mentioned above to overcome the rejections of independent claim 19. Applicants respectfully request that the §103 rejection of claims 12-15 also be withdrawn.

Claim 16 stands rejected under 35 U.S.C. 103(a) as being obvious over the Lewis, Kumagai, Nishida, and Clive references. The reasons recited above with respect to the rejection of independent claim 9 are reasserted herein. More specifically, the cited

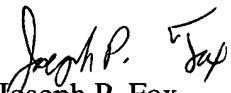
references fail to disclose or suggest, among other things, the feature of the inductance of the inductance device generating a magnetic field that is applied to a magneto-optical disk so as to achieve information reproduction therefrom according to a super-resolution technology. Accordingly, since the combination of these references fails to disclose this feature, withdrawal of the §103 rejection of claim 16 is respectfully requested.

For all of the foregoing reasons, Applicants submit that this Application is in condition for allowance, which is respectfully requested. The Examiner is invited to contact the undersigned attorney if an interview would expedite prosecution.

Respectfully submitted,

GREER, BURNS & CRAIN, LTD.

By


Joseph P. Fox
Registration No. 41,760

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300 South Wacker Drive - Suite 2500
Chicago, Illinois 60606
Telephone: 312.360.0080
Facsimile: 312.360.9315
Customer Number 24978

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